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ROYAL ASTRONOMICAL SOCIETY.

Vol. XIX. *December* 10, 1858. No. 2.

Dr. Lee, V.P., in the Chair.

The Rev. Adam Storey Farrer, Oxford;
Wm. Pearce Poole, Esq., Trinity College, Dublin; and
Thomas Slater, Esq., 136 Euston Road,

were balloted for and duly elected Fellows of the Society.

The Astronomische Nachrichten.

It may be well to mention for the information of such of the Fellows of the Society as may contemplate subscribing to this valuable periodical, that a new volume (the fiftieth) will shortly commence. The price per volume is fifteen shillings, payable in advance. Two volumes are generally published in the course of a year. Gentlemen desirous of subscribing are requested to send an intimation to that effect to Mr. Williams, Assistant-Secretary of the Society.

Letter from Mr. Maclear to the Astronomer Royal.

"I herewith send the observations made on D'Arrest's comet. By the same post I forward a copy of them to M. Villarceau of the Paris Observatory, who wrote to me respecting them.

"It was a very faint object, partly owing, perhaps, to the line of sight being through the Kloop that separates the Lion's Head from the Table Mountain. When I detected it all light had been excluded from the equatoreal room for some fifteen minutes, otherwise perhaps it might have escaped; and when occasionally I looked during the series of observations afterwards, the image was never brighter than at first. Making due allowance for the low altitude, and the direction along the north edge of the Table Mountain cap, my impression is, that in the search for it hereafter the object-glass should not be less than six or seven inches."

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Underneath are the observations referred to in the foregoing letter:—

Right Ascensions and North Polar Distances of D'Arrest's Comet observed at the Royal Observatory, Cape of Good Hope. By T. Maclear, Esq.

Date.	No. of Star.	Cape Mean Time.	Difference in R.A.	R.A. of Comet.	Log $\frac{p}{P}$	No. of Obs.
1857.		h m s	m s	h m s		
Dec. 5	1	8 59 18·7	−0 25·97	19 51 35·34	+8·7743	1
7	2	8 42 9·3	+0 5·77	20 0 19·60	·7736	13
8	3	8 51 43·6	+0 47·66	20 4 44·96	·7741	12
9	4	9 7 46·0	+0 9·00	20 9 10·62	·7732	3
10	5	8 37 9·0	+0 15·68	20 13 30·22	·7724	10
		8 57 43·3	+0 19·11	20 13 33·65	·7737	10
14	6	8 38 51·3	+0 39·49	20 31 4·04	·7715	5
		8 51 55·8	+0 41·81	20 31 6·36	·7727	5
15	7	8 38 50·3	+0 32·93	20 35 26·23	·7711	8
		9 3 39·2	+0 37·55	20 35 30·85	·7724	8
18	8	8 40 0·7	−0 9·41	20 48 32·04	·7701	10
	9	8 58 3·5	−0 19·38	20 48 35·34	·7716	10
20	10	8 42 4·8	−0 30·27	20 57 12·46	·7695	6
		9 14 23·5	−0 23·98	20 57 18·75	·7701	2
21	11	8 40 34·4	+0 17·09	21 1 31·67	·7690	10
		9 4 58·16	+0 21·71	21 1 36·29	·7704	8
22	12	8 37 39·5	+0 4·01	21 5 49·57	·7679	3
24	13	8 51 29·6	+0 41·46	21 14 26·07	·7689	8
1858.						
Jan. 4	14	8 43 19·5	−0 6·81	22 0 15·49	·7622	10
		9 4 55·3	−0 3·21	22 0 19·09	·7640	9
5	15	8 45 40·0	−1 5·09	22 4 17·76	·7619	6
		9 7 38·6	−1 1·21	22 4 21·64	·7634	3
7	16	8 43 13·6	−0 2·77	22 12 18·93	·7606	10
10	17	8 45 22·7	+0 38·95	22 24 10·22	·7595	8
		9 6 17·3	+0 42·34	22 24 13·61	·7608	6
12	18	8 44 14·1	+0 47·75	22 31 57·13	·7583	4
		8 53 52·8	+0 49·31	22 31 58·69	·7594	5
13	19	8 45 17·4	−0 54·68	22 35 48·43	·7576	4
		8 53 38·2	−0 53·73	22 35 49·38	·7587	4
15	20	8 41 37·1	+0 34·54	22 43 26·40	·7563	5
		8 48 45·2	+0 34·62	22 43 26·48	·7573	3
16	21	8 46 28·0	−0 39·67	22 47 12·89	·7564	4
		8 54 33·5	−0 38·13	22 47 14·43	·7573	4
17	22	8 45 23·1	−0 14·31	22 50 58·14	·7558	8
18	23	8 43 44·1	+0 30·84	22 54 42·13	·7552	4
		8 51 46·3	+0 32·31	22 54 43·60	+8·7562	4

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Date.	No. of Star.	Cape Mean Time.	Diff. in N.P.D.	N.P.D. of Comet.	$\log \frac{q}{P}$	No. of Measures.
1857.		h m s	′ ″	° ′ ″		
Dec. 5	1	9 2 10·7	+ 1 58·04	111 16 34·8	+9·7233	1
7	2	8 29 45·2	− 1 52·48	111 12 40·3	·6866	10
		9 1 23·9	− 1 57·93	111 12 34·8	·7223	2
8	3	8 51 53·6	+ 0 53·78	111 9 58·8	·7122	12
9	4	9 4 53·5	− 9 23·51	111 6 52·2	·7253	2
10	5	8 48 13·5	− 7 37·49	111 3 25·4	·7070	10
		9 7 3·5	− 7 43·01	111 3 19·9	·7284	6
14	6	8 44 49·9	− 4 51·39	110 44 44·8	·7027	5
		9 3 31·7	− 4 58·04	110 44 38·1	·7230	6
15	7	8 50 57·9	− 5 3·27	110 38 55·6	·7092	10
18	8	8 49 5·3	− 8 3·23	110 19 0·8	·7061	10
	9	9 6 43·6	+ 7 4·76	110 18 54·1	·7247	6
20	10	9 5 30·8	+ 0 47·76	110 3 35·7	·7229	7
21	11	8 53 19·6	+ 0 52·01	109 55 19·4	·7111	10
22	12	8 47 52·4	+ 4 23·15	109 46 35·4	·7051	4
24	13	9 2 53·6	+ 7 40·44	109 27 57·0	·7222	5
1858.						
Jan. 4	14	8 55 9·6	− 1 44·81	107 21 18·6	·7168	10
5	15	8 57 52·1	−11 30·44	107 7 56·3	·7189	5
7	16	9 5 28·1	+ 4 14·65	106 40 22·7	·7274	3
10	17	8 56 23·3	− 0 11·91	105 57 30·1	·7220	6
12	18	8 44 24·3	− 5 17·70	105 27 49·6	·7138	4
		8 54 3·0	− 5 23·91	105 27 43·4	·7216	5
13	19	8 45 28·0	− 8 45·09	105 12 41·6	·7142	4
		8 53 48·6	− 8 52·67	105 12 34·0	·7208	4
15	20	8 41 47·6	− 6 52·18	104 41 48·4	·7143	3
		8 48 55·5	− 7 1·05	104 41 39·6	·7197	3
16	21	8 46 38·2	− 3 51·99	104 26 1·5	·7179	4
		8 54 43·9	− 3 54·65	104 25 58·8	·7240	4
17	22	8 52 32·2	− 3 33·45	104 10 5·6	·7235	4
18	23	8 43 54·4	+ 4 13·70	103 54 5·1	·7186	4
		8 51 56·6	+ 4 12·88	103 54 4·3	+9·7244	4

The comet's places are corrected for refraction, but not for parallax. p and q are the parallax corrections in seconds of time and arc respectively, and P is the horizontal parallax.

The foregoing observations were made by Mr. Mann with the 8½-feet equatoreal, to which was attached a position micrometer with stout silver wires. Power 90.

The comet appeared to be a very faint nebulous body subtending a diameter of about 1′¼; and was observed generally under very unfavourable circumstances, owing to its low altitude (from 8° to 16°), and the continued interruption caused by drifting clouds from the Table Mountain.

1857.
Dec. 5. The two observations made this evening are very rough.
7. Much annoyed by cloud; the observations uncertain.

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Dec. 9. A few glimpses only obtainable through cloud; the observations very doubtful.
14. Much interrupted by cloud.
15. Cirrous haze in the west; the comet barely visible when taking the second set of transits.
20. Clear and calm, but the moonlight nearly obliterates the comet; it is detected with great difficulty.
21. Clear, but the comet barely visible, owing to moonlight.
22. Clouded; the few observations obtained this evening are very indifferent.
24. The faintest trace of the comet visible; after the last observation it was no longer seen.

1858.
Jan. 4. The comet is now remarkably faint, but the atmospheric circumstances are favourable, and the observations on the whole satisfactory.
5. Violent S. wind, the chronometer beat heard with difficulty; the second set of transits doubtful; further observations impracticable.
7. Much annoyed by cloud; the comet barely visible when the N.P.D. measures were taken.
10. The comet almost too faint for work; the second set of differences in R.A. very doubtful.
12 to 18. The comet of the last degree of faintness, and the observations in consequence very difficult.

Royal Observatory, Cape of Good Hope,
Oct. 6, 1858."

Mean R.A. and N.P.D. of the Stars compared with D'Arrest's Comet, 1857, 1858, *and Apparent Places for the Day of Observation.* By T. Maclear, Esq.

No. of Star.	Mag.	Mean R.A. 1858·0.	Annual Precession.	No. of Obs.	Mean N.P.D. 1858·0.	Annual Precession.	No. of Obs.
		h m s	s		° ′ ″	″	
1	9	19 52 2·42	+3·529	4	111 14 25·88	−9·42	5
2	10½	20 0 14·90	·520	4	111 14 21·78	10·05	4
3	10	20 3 58·36	·514	3	111 8 54·06	10·33	3
4	11	20 9 2·65	·511	3	111 16 4·72	10·71	3
5	9	20 13 15·56	·504	3	111 10 51·87	11·02	3
6	9½	20 30 25·49	·473	4	110 49 25·19	12·24	3
7	8½	20 34 54·22	·465	3	110 43 47·94	12·55	3
8	11½	20 48 42·31	·440	3	110 26 53·23	13·46	4
9	9½	20 48 55·58	·435	4	110 11 38·58	13·48	4
10	8½	20 57 43·55	·419	3	110 2 37·26	14·04	4
11	10	21 1 15·39	·411	3	109 54 16·78	14·26	3
12	11½	21 5 54·37	·400	3	109 42 1·69	14·54	4
13	7	21 13 45·36	·382	3	109 20 6·11	15·01	3
14	9	22 0 22·87	·279	3	107 22 54·10	17·38	3
15	8	22 5 23·40	+3·271	3	107 19 17·52	−17·60	3